



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/840,114	05/06/2004	Heinfried Hoffmann	P04,0153	7271
26574	7590	07/01/2005	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			BARAN, MARY C	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/840,114

Applicant(s)

HOFFMANN ET AL.

Examiner

Mary Kate B. Baran

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/8/04, 1/14/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - (a) On page 1 [0004] line 1, "frequently" should be – increasingly –.
  - (b) On page 2 [0008] line 7, "in event" should be – in the event –.Appropriate correction is required.
2. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

### ***Claim Objections***

3. Claims 1 and 3 are objected to because of the following informalities:
  - (a) Claim 1 page 4 line 10, "in event" should be – in the event –.
  - (b) Claim 1 page 4 line 16, "actuator dependent" should be – actuator is dependent –.
  - (c) Claim 1 page 4 line 10, "unit, a" should be – unit, and a –.
  - (d) Claim 3 page 5 line 1, "parameters determined from" should be – parameters from –.Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, "the control element can be moved from an initial condition to a final condition in the event of an incident by a control of the actuator by the control unit." It is not clear from the claimed language if the control element is moved by the actuator or the control unit.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Garvey et al. (U.S. Patent No. 6,286,764) (hereinafter Garvey).

Referring to claim 1, Garvey teaches a method to test operating safety of a process control device comprising a control element and an actuator to move the control element (see Garvey, column 5 lines 7-12), a position controller in a safety circuit, the actuator being coupled to a control unit that is connected to the position

controller for exchange of control signals, such that the actuator can be operated by way of the control unit to move the control element and the control element can be moved from an initial condition to a final condition in the event of an incident by a control of the actuator by the control unit (see Garvey, column 5 lines 52-66), and a test cycle for the process control device comprising: generating a control signal for partial movement of the control element aided by the position controller (see Garvey, column 6 lines 26-28); transferring the control signal from the position controller to the control unit via a signal connection (see Garvey, column 6 lines 28-34); controlling the actuator dependent on the control signal aided by the control unit to operate the actuator for the partial movement of the control element from the initial condition (see Garvey, column 6 lines 34-44); detecting, via a measurement device, measurement signals that indicate the partial movement of the control element from the initial condition (see Garvey, column 8 lines 57-67); and returning the control element to the initial condition (see Garvey, column 8 lines 22-28).

Referring to claim 2, Garvey teaches detecting time resolved path signals upon detection of the measurement signals with the aid of the measurement device (see Garvey, column 8 lines 14-34).

Referring to claim 3, Garvey teaches determining movement parameters from the detected time resolved path signals (see Garvey, column 8 lines 14-34).

Referring to claim 4, Garvey teaches executing a leakage measurement upon detection of the measurement signals, aided by the measurement device (see Garvey, column 13 lines 21-28).

Referring to claim 5, Garvey teaches electronically logging of a course of the test cycle and electronically storing the course in a storage device (see Garvey, column 10 line 66 – column 11 line 15).

Referring to claim 6, Garvey teaches activating the test cycle for the process control device utilizing a remote control (see Garvey, column 13 lines 8-21).

Referring to claim 7, Garvey teaches partially venting the actuator, which is a pneumatic actuator, to partially move the control element as a reaction to the controlling by the control unit (see Garvey, column 5 lines 63-66).

Referring to claim 8, Garvey teaches partially hydraulically operating the actuator, which is a hydraulic actuator, to partially move the control element as a reaction to the controlling by the control unit (see Garvey, column 5 lines 63-66).

Referring to claim 9, Garvey teaches a device to test the operating safety of a process control device, comprising: a control element (see Garvey, column 5 lines 7-12); an actuator to move the control element (see Garvey, column 5 lines 52-66); a

position controller in a safety circuit (see Garvey, column 11 lines 7-15); a control unit that is connected with the position controller configured to exchange control signals and is coupled to the actuator, such that the actuator can be operated via the control unit to move the control element in order to move the control element from an initial condition to a final condition in the event of incident with the aid of a controlling of the actuator by the control unit (see Garvey, column 6 lines 34-44); a measurement device configured to acquire measurement signals that indicated a movement of the control element from the initial condition (see Garvey, column 6 lines 34-44); the position controller comprising a control signal generator configured to generate a control signal for a partial movement of the control element in the course of a test cycle for the process control device (see Garvey, column 6 lines 26-28), and to transmit the control signal via a signal connection from the position controller to the control unit (see Garvey, column 6 lines 28-34).

Referring to claim 10, Garvey teaches that the control unit and the position controller are redundantly coupled to the actuator to operate the actuator (see Garvey, column 5 lines 52-66).

Referring to claim 11, Garvey teaches that the actuator is a pneumatic actuator (see Garvey, column 5 lines 63-66).

Referring to claim 12, Garvey teaches that the actuator is a hydraulic actuator (see Garvey, column 5 lines 63-66).

Referring to claim 15, Garvey teaches a suppression device to suppress the generation of the control signal for the partial movement of the actuator in the course of the test cycle (see Garvey, column 11 lines 7-15).

Referring to claim 16, Garvey teaches a storage device configured to store electronic information concerning the test cycle (see Garvey, column 10 line 66 – column 11 line 15).

Referring to claim 17, Garvey teaches an evaluation device configured to automatically evaluate the measurement signals that indicate a movement of the control element from the initial condition (see Garvey, column 7 lines 44-65).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garvey et al. (U.S. Patent No. 6,286,764) (hereinafter Garvey) in view of Rosenberg (U.S. Patent No. 6,300,937).

Referring to claim 13, Garvey teaches all the features of the claimed invention except that the measurement device comprises a motion sensor configured to detect the partial movement of the control element.

Rosenberg teaches that the measurement device comprises a motion sensor configured to detect the partial movement of the control element (see Rosenberg, column 8 line 66 – column 9 line 3).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Garvey to include the teachings of Rosenberg, because having a motion sensor in the feedback loop would have allowed the skilled artisan to detect any deliberate or unwanted motion for normal control or alarm generation, respectively.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garvey et al. (U.S. Patent No. 6,286,764) (hereinafter Garvey) in view of Scheideler (U.S. PG-Pub No. US2003/0188583).

Referring to claim 14, Garvey teaches all the features of the claimed invention except that the measurement device comprises a motion sensor configured to detect the partial movement of the control element.

Scheideler teaches that the measurement device comprises a motion sensor configured to detect the partial movement of the control element (see Scheideler, page 4 [0088]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Garvey to include the teachings of Scheideler, because having a sound sensor in the feedback loop would have allowed the skilled artisan to detect any deliberate or unwanted vibration for normal control or alarm generation, respectively.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Bretmersky et al. teach a method of compensating for changes in flow characteristics of a dispensed fluid.

(b) Eagan et al. teach a method and apparatus for controlling an engine test apparatus using lead-lag control.

(c) Miele teaches a back-up safety device and method.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Kate B. Baran whose telephone number is (571) 272-2211. The examiner can normally be reached on Monday - Friday from 9:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

26 June 2005  
MKB

